HEXAWARE

Enabling Cloud and Digital Transformation for a Secondary Mortgage Services Provider

A Fortune 500 financial services firm leverages Hexaware's digital transformation in mortgage industry capabilities to achieve 50% cost savings.

Case study

Client

Our client is a Fortune 500 financial services firm that deals in purchase and guaranteed mortgages in the secondary market. It has a robust portfolio encompassing mortgages related to single-family, multi-family, and capital markets business units. The client sought to leverage the benefits of digital transformation in the mortgage industry to transform their processes, optimize costs, and improve customer experience.

Challenge

The company's on-premises monolithic application, developed on legacy technologies like Java and TIBCO BusinessWorks impeded our client's time-to-market for introducing new features. This adversely affected application performance, resiliency, capability, scalability, and security.

The existing setup lacked seamless integration capabilities for internal and commercial off-the-shelf (COTS) products, making it difficult to establish a single source of truth and support robust data-driven business intelligence. Additionally, data and application security needed improvement, and the absence of easy integration for external client data increased the turnaround time.

- The main credit enhancement application suffered from a monolithic architecture consisting of hard-coded business rules and faulty calculation logic, making rule changes painful.
- The legacy nature of the platform resulted in high maintenance and enhancement costs. Moreover, the legacy systems lacked shared environments, requiring the creation of new environments for each release. This process increased maintenance costs further, as setting up each environment took over a month.
- New production rollouts occurred only every 6 to 7 months due to the extended time needed to implement and test applications. This lack of agility and slow speed to market resulted in long timelines for launching new business features, adversely affecting the client's competitiveness.
- The platform contained several technical components that were no longer supported. These outdated features strained the system, which processed 40 million mortgage records daily.
- Business teams faced challenges in tracking data flow across upstream and downstream applications.
- Highly manual, labor-intensive processes increased the risk of operational failures, resulting in reputational damage to the client.

Challenge

What the client needed:
Critical objectives were to exit the data center to optimize costs and improve the overall customer experience, both internally and externally.

Furthermore, our client was looking to transform their processes:

Underwriting
Transforming their underwriting platform posed challenges with mitigating risks tied to manual processes, optimizing profitability, enabling efficient credit risk assessments, and ensuring customer-friendly eligibility checks for home loans. The application modernization initiative demanded a strategic overhaul to enhance efficiency, reduce errors, and navigate complexities in a dynamic financial landscape. Key aspects included:

- Enabling a comprehensive platform to process 3x volumes of data in 50% reduced time compared to the legacy system.
- Implementing an API-based platform for servicers to interact with our client in exchanging loan details for faster underwriting approvals.
- Providing automated underwriting guidelines.
- Performing a comprehensive risk assessment and eligibility determination.
- Enhancing credit risk assessment with the use of trended credit data.
- Improving market competitiveness.

Credit Capabilities
The credit process faced a pivotal challenge in establishing a credit risk transfer mechanism for mortgage-backed securities (MBS). The primary goals were to diminish credit risk through guaranty fees, implement loss sharing on every loan, accelerate the launch of new business features, reduce lead times, and elevate market competitiveness by maximizing the potential of digital transformation in the mortgage industry. Specifics included:

- Reducing risks and manual processes.
- Improving market efficiency through consistent and programmatic issuance of various credit risk-sharing products.
- Minimizing the impact on borrowers, renters, and lenders by offering attractive investment options for investors.

Solution

Credit Enhancement Target State

If borrowers became delinquent, the client had the right to take over the real estate assets, which affected the overall profitability. To avoid this, the client wanted to implement a business model that made it possible to transfer risk onto the borrowers.

This was a very critical business program, taking into consideration the fact that the client had over 15 million loans with assets over $3 trillion. Hexaware stepped in and implemented a business model for credit risk transfer that enabled the client to be a shareholder in the risks.

This strategic initiative incorporated numerous best practices to enhance efficiency and effectiveness. We also introduced agile methodologies, push-button deployment, and automated testing to streamline the client's operations.

Cloud Transformation of Business Programs

We leveraged our proprietary, end-to-end cloud transformation platform, Amaze®, to automate on-premises to cloud modernization of the monolithic application to microservices.

Our client's expectation was a transformation of existing technology to a cloud ecosystem without changes in business logic, with added vigilance toward code quality and security standards.

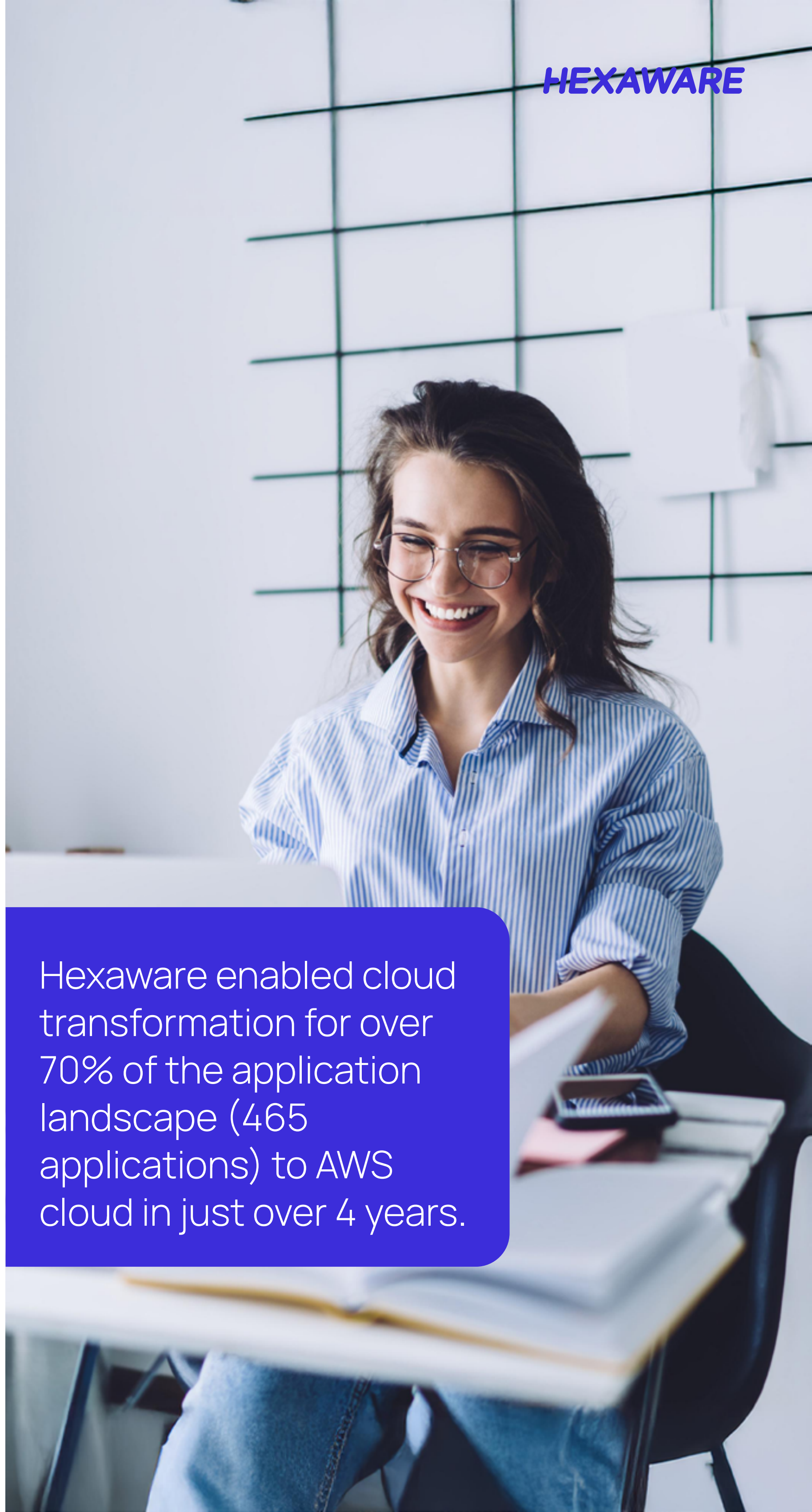
The Amaze® platform helped our client to sail through the transformation with:

- Application containerization with a lift and shift to any cloud provider including private cloud.
- Assessing the existing on-premises application code base to identify technical and business impacts of re-platforming the application and data migration from monolith to microservices landscape on AWS.
- Updating and improving the code to break down a large, single application into smaller, independent services that communicate through REST API endpoints.

The transformation helped our client to align the application technology stack to their target state architecture. It saved them significant licensing costs by migrating from IBM WebLogic Application server to Apache Tomcat on AWS.

Automation

Our QA teams automated 650 test cases with CICD (continuous integration, continuous deployment) driving 11 successful production releases. Our team introduced a new tool that accelerated code development by 30%. This simplified and automated production deployment to just 4 hours leading to our client's vision for a single-click deployment in the future. A new testing automation tool linking with Jira and the quality center helped auto-update test cases too. The entire DevOps environment was automated for push-button deployment.



Solution

Enterprise Data Infrastructure
We revamped the client's data ecosystem on AWS as a strategic partner in their enterprise data infrastructure (EDI) journey, utilizing Lambda, PySpark, Databricks, and Redshift Spectrum. We also implemented AI/ML capabilities as part of the AWS cloud data migration initiative using SageMaker.

Our involvement included overseeing 25 scrum teams to deliver data transformation initiatives, including data consolidation across the client's organization and migration to cloud by leveraging ETL (extract, transform, and load), big data, cloud, and Java technologies.

We built an integrated data store (IDS), an enterprise data warehouse (EDW), and an enterprise data lake (EDL) to enhance the client's data infrastructure. The IDS consolidated multiple business data sources, enabling real-time data capture and processing for consumers, the EDW, and the EDL.

The EDW facilitated inter- and intra-business unit reporting, offering flexible configuration-based views and the ability to slice and combine data segments as needed. The IDS, EDW, and EDL were built on a layered data processing architecture, allowing for independent throttling, auditing, and reporting.

These advanced, technology-driven components were designed not only to enhance business operations but also to enable the creation of new product lines and to support cross-selling initiatives.

Elevating Customer Experience
Our client established a specialized team to explore digital transformation opportunities for their customer-facing channels. Collaborating closely with this team, we prioritized self-service capabilities to enhance the overall customer experience.

We developed a new API policy for the client's underwriting tool, significantly reducing application processing time and eliminating the need for manual handoffs by the client's staff. To further elevate customer engagement, we implemented chatbots, transforming the customer's digital experience and delivering greater satisfaction.

Additionally, Hexaware defined 150 business rules and 40 calculation logics within the client's rule management system, empowering business teams to manage rules independently. This system was seamlessly integrated with a centralized hub, streamlining data flow across six upstream applications and seven downstream applications.

Solution

Client

Challenge

Solution

Benefits

Summary

Additionally, Hexaware emerged as a strategic partner in the client's broader technology initiatives by:

- Covering 90% of the client's technology stack
- Supporting 70% of their core business processes
- Executing 70% of the client's current strategic programs and initiatives
- Utilizing managed capacity and output-based engagement models

> The client's enterprise data transformation was one of the most advanced, complex, and impactful projects in the industry. This success earned Hexaware recognition within the financial services sector, paving the way for partnerships on several critical business initiatives.

Benefits

30% faster loan processing time from an erstwhile 45-day cycle to 30 days, with actionable error messages that decreased the processing time.

Up to 50% reduction in costs compared to manual execution through automation.

30% improved productivity through the automation of design and architecture patterns with inbuilt script generation.

10% reduction in monthly operational cycle time achieved by covering 81% worth of business ($3.33 trillion) through the credit risk transfer program.

83% reduction in functional release time.

Rapid cloud transformation in 8 weeks.

1 petabyte of data migrated to AWS Cloud.

2.3 x faster cloud migration, significantly enhancing efficiency and reducing project timelines.

40% reduction in development costs.

40% faster code deployment and ongoing maintenance efforts.

$15 million saved in 7 years through automation initiatives.

A single, centralized view of all data for enterprise and external consumers, capable of handling large data volumes triggered by system events or user actions.

Summary

In the fast-paced world of financial services, where agility, security, and cost efficiency are paramount, Hexaware spearheaded a transformative journey. By orchestrating the seamless re-platforming of applications and databases onto AWS, we not only delivered substantial savings of $5 million but also achieved this feat in an astonishing 50% less time than traditional manual efforts.

With Hexaware covering 90% of the client's technology stack and executing 70% of their strategic initiatives, the narrative evolves into a story of strategic evolution and future readiness. As a preferred cloud transformation partner, Hexaware transformed over 70% of the client's application landscape, leveraging our Amaze® platform to optimize cost and time while maintaining business continuity.

In the financial sector, where data is currency and technology is the backbone, Hexaware's transformation solutions empowered our client to navigate the digital landscape with confidence, efficiency, and a future-ready technological architecture.

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About Hexaware

Hexaware is a global technology and business process services company. Every day, Hexawarians wake up with a singular purpose: to create smiles through great people and technology. With this purpose gaining momentum, we are well on our way to realizing our vision of being the most loved digital transformation partner in the world. We also seek to protect the planet and build a better tomorrow for our customers, employees, partners, investors, and the communities in which we operate.

With offices across the world, we empower enterprises to realize digital transformation at scale and speed by partnering with them to build, transform, run, and optimize their technology and business processes.

Learn more about Hexaware at https://www.hexaware.com

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